

## BALLARAT FIELD NATURALISTS' CLUB

### EXCURSION/NEWS SHEET - SEPTEMBER 1977.

President; Mr. G. Binns	Ph. 323670
Vice-Pres: Mr. L. Fink	861319
Secretary: Miss H. Burgess	312210
Treasurer: Mr. S. Reynolds	327721

Meetings held in the Biology Section at the School of Mines, Lydiard St. Sth. at 8 p.m. first Friday of each month. (Unless otherwise stipulated.)

NEXT MEETING: 9th September. Mr. R. Watkins. "Walking in the Mt. Everest Region."

MEETING: 7th October. Botanical Study Night at the Laboratory, Victorian School of Forestry, Creswick - led by Mr. R. Hateley. Please be there by 7.30 p.m. sharp.

SEPTEMBER EXCURSIONS: 11th September, Enfield Block. Leaders Mrs. P. Murphy and Mr. G. Binns. Leaving Crockers (Armstrong St. side) 1.30 p.m.  
24th September - A Saturday afternoon to Lal Lal Block, leaving 1.30 p.m.

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### EVOLUTION AND FOSSILS.

The monthly meeting on 5th August was well attended. Mr. K. Llewellyn, from the Geology Department at B.C.A.E. gave a most interesting talk on "Evolution and Fossils." He illustrated this with slides, quite a few of these being enlargements taken from text books on the subject.

It was amazing to learn that the earth's age has proved to be four and a half thousand million years. Mr. Llewellyn spoke on the various geological features of Australia's inland, and of the fossils of various types of fish found there. The first fish had only one dorsal fin, a mouth, but no jaws, vastly different from fish we know today. Dinosaurs were 20 feet high, with a 6 foot head. And in those early days, birds had teeth.

Mr. Llewellyn's final subject was the monkey group, and the great apes, from which man developed.



## MARYBOROUGH EXCURSION.

The excursion to the Maryborough district on Sunday 7th August departed with 11 members. We stopped by the swiftly flowing Tullaroop Creek to collect seeds of *Callistemon paludosus* and *Acacia retinoides*. These will be propagated by S.G.A.P. members for future plantings near the Clunes Swamps. While collecting cuttings of *Hymenanthere deutata* - tree violet - a beautifully lined nest of lamb's wool, not  $1\frac{1}{2}$  metres from the ground, was ready for occupancy.

A walk in the Majorca area at lunch time revealed the foliage of 5 species of orchid and over 30 species of other flora. There was little in flower and the acacias were yet to come into their full glory. From a huge iron bark stump, coppice growths surrounded the original trunk. On glancing down the now hollow trunk the remains of an echidna were seen, evidently starved to death.

Bird sightings for the morning included water birds, there being saturated paddocks after the recent rains. Other birds were scarlet robins, eastern shrike tits, wattle birds and yellow tufted honey eaters.

The Maryborough Club were our hosts for the afternoon. About 50 members from the two clubs enjoyed the afternoon. Three wedge-tailed eagle nests were observed within a small area, not 4 kilometres from Maryborough Post Office as the eagle flies. There had been a fourth nest but the wind had dislodged a vital support. There did not appear to be evidence that any of the nests were in use this year.

Urn heath - *Styphelia urceolata*, Peach heath, *S. strigosa*, *Cryptandia*, *Hardinbergia*, *Grevillea alpina* and *Tetratheca ciliata* were just bursting their buds.

Some aboriginal water holes near the road were examined and we climbed to the Big Quartz Reef to see the area of flying duck orchids - *Caliana major*, as yet not evident. Just commencing to bloom were mosquito orchids, *Acianthus reniformis*. It was almost impossible not to walk on these, so profuse were they. Great excitement when Stella Bedggood identified the slender leaves of *Caladenia iridescens*, a species not recorded on the Maryborough plant list. Further excitement when a low flying wedge tailed eagle circled overhead just prior to our departure - an occupier of one of the nests?

Our thanks to the Maryborough Club for arranging the interesting excursion.

Contributed- Helen Burgess.



## NOTES ON THE SAW-FLY.

On many of our excursions, particularly along the Woody Yaloak, we have been intrigued by the sight of an occasional cluster of Saw-fly larvae. These caterpillars hang in a thick, squirming mass from saplings and young shoots of eucalypts. In his book "Insect Wonders of Australia" (published in 1935, but still fascinating reading), K. C. McKeown of the Australian Museum details the interesting habits of these insects:

"The Saw-flies form an interesting group of wasps remarkable for the possession by the female of an ovipositor, or egg-laying organ, in the form of a most delicately constructed saw, the whole folding down like the blade of a penknife into a slot in the body of the insect when not in use ... The use of this remarkable organ is to cut slits in the tissue of the leaves of trees and shrubs in which the mother deposits her eggs."

Saw-flies are most unusual in the insect world as, in one species, the mothers show evidence of maternal care, tending and protecting their young. McKeown states that Lewis's Saw-fly, which feeds on the Bloodwood, not only stands guard over the eggs until they are hatched, straddling them with wings half-opened and crawling back to them if removed, but looks after the grubs for some time after they have begun feeding. The Steel-blue Saw-fly is a big wasp which lays its eggs on the leaves of Red Gum and other eucalypts in the double slits it cuts in the leaf tissue. The newly hatched larvae feed on the foliage in close ranks and, as they grow, cluster together by day in great black masses, apparently for mutual protection. When disturbed by attackers the larvae elevate both head and tail in a threatening manner. They rap their tails ejecting thick greenish fluid from their mouths to repel the invaders. At night they ascend the tree to feed on the foliage, often stripping it bare. When fully developed, the larvae crawl to the base of the tree where they cluster in a black mass preparatory to burrowing underground to pupate in brown, barrel-shaped papery cocoons. After some months, sometimes a year or more, the adult insects emerge. In southwest Queensland, the Ironbark Saw-fly has caused death among cattle who sometimes lick up the squirming masses from the base of the tree.

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# EUCALYPTS OF THE BALLARAT DISTRICT



E obliqua



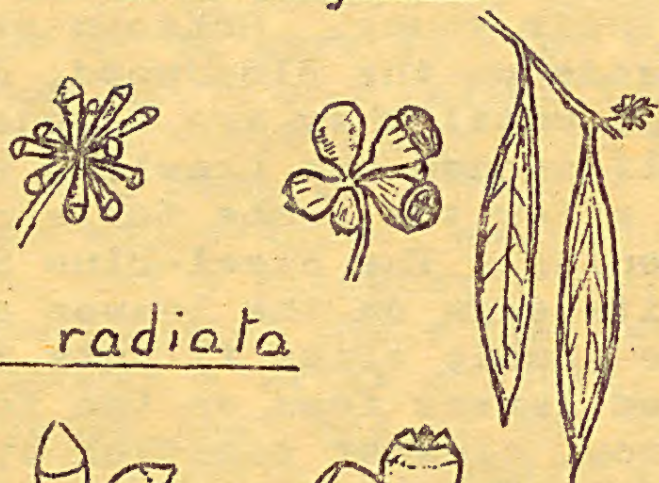
E boxteri



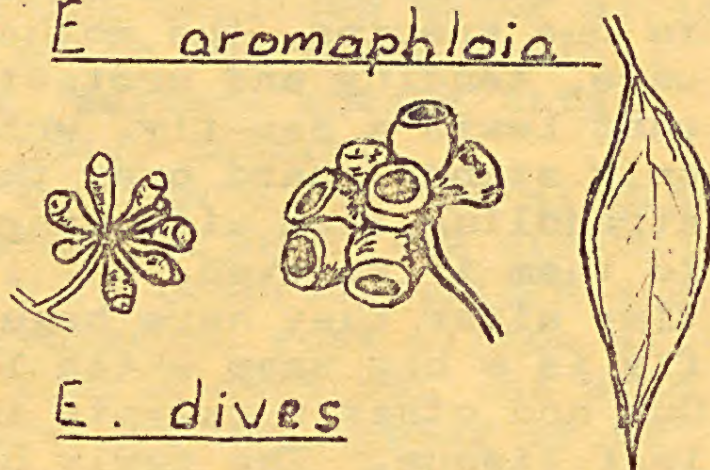
E macrorrhyncha



E aromaphloia



E radiata



E. dives



E rubida



E viminalis



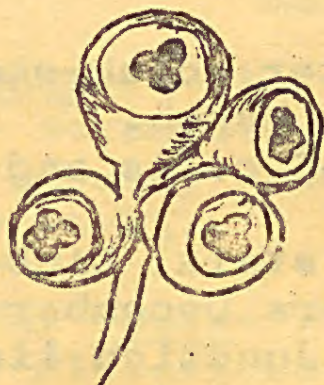
E camaldulensis



E ovata

Not to scale.

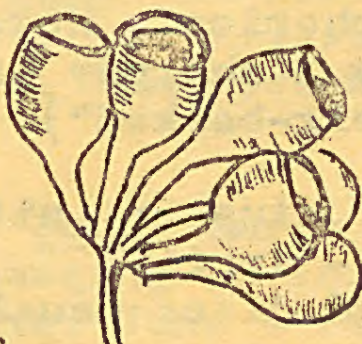




E. pauciflora



E. leucoxylon



E. sideroxylon



E. polyanthemos



E. goniocalyx

- E. obliqua .. messmate
- " baxteri .. brown stringybark
- " macrorhyncha .. red stringybark
- " aromaphloia .. scent-bark
- " radiata .. narrow-leaved peppermint
- " dives .. broad-leaved peppermint

- E. rubida .. candlebark gum
- " viminalis .. manna gum
- " camaldulensis .. river red gum
- " ovata .. swamp gum
- " pauciflora .. snow gum
- " leucoxylon .. white ironbark
- " sideroxylon .. red ironbark
- " polyanthemos .. red box
- " goniocalyx .. long leaved box

S.B.



## EUCALYPTS.

- E. *obliqua*: Buds- 4-16 per cluster; club-shaped with short point. Flowers Jan. - March.  
Fruit- Wine-glass shaped, 3-5 cells and sunken valves.
- E. *baxteri*: Buds- 5-10 on thick stalk. Club-shaped with rounded wrinkled caps. Flowers December - April.  
Fruit- Large and roundish. Junction line (rim) higher than widest part. Usually 4 cells, protruding valves.
- E. *macrorhyncha*: Buds- 6-12 per cluster. Caps pointed. Flowers January - April.  
Fruit- Large, almost spherical. Note junction line (rim) at widest part. Usually 3 sharply projecting valves. (macro-rhyncha means "big-beaked").
- E. *aromaphloia*: Buds- 7 per cluster, with slightly pointed caps. Flowers January - April.  
Fruit- Top-shaped, domed disc; usually 3-celled with prominent valves.
- E. *radiata*: Buds- Small and very numerous (8-16 per cluster); caps tiny and pointed. Flowers October-Jan.  
Fruit- Small, pear shaped; flattish top, usually 4 valves at disc level.
- E. *dives*: Buds- 7-15 per cluster, slightly larger than in E. *radiata*, with blunt caps. Flowers October - Dec.  
Fruit- Pear-shaped, flattish top with small valves at rim level.
- E. *rubida*: Buds- In 3's. Flowers November - February.  
Fruit- In 3's, 3-4 prominent valves.
- E. *viminalis*: Buds- Usually in 3's (sometimes 5's) Flowering variable, chiefly summer.  
Fruit- Usually in 3's, 3-4 valves.
- E. *camaldulensis*: Buds- 4-12 (often 7) per cluster. Contracting pointed caps; long stalks. Flowers November - March.  
Fruit- Small, with long stalks; usually 4 valves, strong and projecting.



## EUCALYPTS (Contd.)

- E. ovata: Buds- 3-10 (often 7) in a cluster. Flowers March - November.  
Fruit- Usually cone-shaped with flat top; 3-4 valves at disc level.
- E. pauciflora: Buds- 7-12 in a cluster; caps with small points. Flowers October - January.  
Fruit- Pear-shaped; valves inconspicuous - at disc level, 3-4 cells.
- E. leucoxylon: Buds- Usually in 3's, fairly large, on long thin stalks. Flowers May - December.  
Fruit- Large, long stalked, goblet-shaped; sunken valves.
- E. sideroxylon: Buds- Large with pointed caps 3-7 in clusters, hanging on long stalks. Flowers conspicuous pink or white. June - Feb., usually late winter.  
Fruit- Goblet-shaped on long stalks.
- E. polyanthemos: Buds- 3-7 per cluster, in compound sprays. (Poly-anthemos means "many flowers"). Flowers September - January.  
Fruit- Small, pear-shaped with fairly deep valves. 4-5 cells.
- E. goniocalyx: Buds- 4-7 in starlike arrangement on broad flat stalk. Ridges on calyx-tube (gonio-calyx means "angled calyx"). Flowers March - August.  
Fruit- Cup-shaped with fine ridge. Closely packed in cluster. Rather variable in shape.
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### W.V.F.N.C.A. CAMP-OUT BRISBANE RANGES. 1st - 2nd OCTOBER.

The site is at Staughton Vale, north of Anakie and east of the Brisbane ranges. Facilities for camping and caravans are at an old school site. Tank water, toilets available - no showers. Further information to be forwarded to Miss Helen Burgess later in this month - phone 312210 for further enquiries.

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## COLAC CAMP-OUT: GELLIBRAND AREA.

Our first stop was to view a variety of shrubs by the roadside, including Narrow Leaf Wattle (*A. mucronata*); Prickly Moses (*A. verticillata*); Common Heath (*E. impressa*); Silver Banksia (*B. marginata*) the only Banksia in the Otways. Prickly tea tree (*L. juniperinum*), Messmate (*E. obliqua*) and others.

Then we visited a very interesting area of Lardner's track, Gellibrand and viewed an enormous rock which had in days gone by been used as a grinding stone by aboriginals, and here we saw many grooves where probably axes had been ground. Stones were probably gathered at an area nearby where a quarry now exists. These people probably bartered their goods with other tribes who had other wares.

We went to Wonga Lookout where, excepting the areas that have been cleared for pine plantations, the glorious views were thoroughly enjoyed by all. From here we passed through Stringybark forest to White Reg Road and Colac Carlisle Rd. intersection where we viewed *Spyridium parvifolium* (Dusty Miller); *Gahnia sieberiana* (Red saw-fruit sedge); *Malaleuca squarrosa* (Scented paperbark); *Tetrarrhena juncea* (Wire Grass); *Acacias mucronata* (Narrow-leaf Wattle); *A. myrtifolia* (Myrtle Wattle) and *A. dealbata* (Silver Wattle); *Goodinia ovata*; Appleberry and violets.

Contributed Mrs. F. Williamson.

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CONGRATULATIONS to Colleen Filbey and Edwin Bedggood on the occasion of their recently celebrated engagement.

CONGRATULATIONS also to Mr. Jack Wheeler of Geelong for being awarded the Australian Natural History Medallion for 1977 - to be presented at F.N.C.V. in Melbourne on 14th November 1977.

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## ANGAIR 1977 AUSTRALIAN

### WILDFLOWER SHOW

To be held in the Anglesea Hall on Saturday September 24th 10 a.m. to 8 p. m. and Sunday September 25th 10 a.m. to 6 pm.